IN THE CLAIMS

The claims are as follows:

1.   (Previously Presented) An isolated cholesterol recognition/interaction amino acid consensus sequence consisting of

$$Z-(X)_{0-5}-Tyr-(X)_{0-5}-B \text{ (SEQ ID NO:26)}$$

wherein Z is a neutral hydrophobic amino acid, B is a basic amino acid and X is any amino acid.

2.   (Original) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein Z is Leucine or Valine.

3.   (Canceled)

4.   (Previously Presented) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein B is Arginine or Lysine.

5.   (Previously Presented) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein

        (i)   Z is leucine or Valine; and

        (ii)   B is Arginine or Lysine.

6.   (Original) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein X is one amino acid.

7.   (Original) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein X is two amino acids.

8.   (Original) The cholesterol recognition/interaction amino acid consensus sequence of claim 1 wherein X is 1-3 amino acids.

9.   (Withdrawn) A nucleic acid molecule encoding the consensus sequence of claim 1.

10-19. (Canceled)

20.   (Previously Presented) A fusion polypeptide comprising a cholesterol interaction/recognition sequence according to claim 1.

21.   (Withdrawn) A method for detecting whether or not a protein recognizes cholesterol comprising identifying in the amino acid sequence or the nucleic acid sequence of said protein the presence or absence of a cholesterol recognition/interaction consensus sequence according to claim 1 wherein the presence of the consensus sequence indicates possible interaction/recognition of the protein with cholesterol.

22.   (Withdrawn) A method for conferring cholesterol recognition/interaction to a molecule comprising introducing into said molecule a cholesterol recognition/interaction sequence according to claim 1 such that said sequence is expressed and said molecule interacts with cholesterol.

23.   (Withdrawn) A method for reducing serum cholesterol in a subject, said method comprising introducing into said subject a nucleic acid comprising the cholesterol interaction/recognition consensus sequence according to claim 1 such that it is expressed and is able to interact with cholesterol.

24.   (Withdrawn) A method for delivering cholesterol to a subject comprising administering a peptide comprising the cholesterol interaction/recognition consensus sequence according to claim 1 complexed with cholesterol in a pharmaceutically acceptable amount, in a pharmaceutically accpetable diluent.

25.   (Withdrawn) A method for detecting an increase or decrease of cholesterol in a biological sample comprising

immobilizing a polypeptide comprising the cholesterol interaction/recognition consensus sequence according to claim 1 on a solid support rendering an immobilized polypeptide,

exposing the sample to the immobilized polypeptide, and

measuring the amount of cholesterol-bound polypeptide wherein when comparing to a standard, an increase or decrease over the standard can be determined.

26.   (Withdrawn) A method for screening agents or drugs which are agonists or antagonist of interaction between peptides comprising the cholesterol recognition/interaction consensus sequence according to claim 1 and cholesterol comprising

exposing a polypeptide comprising the consensus sequence of the present invention to cholesterol under conditions where interaction between cholesterol and the peptide occurs forming a peptide/cholesterol complex

incubating the complex with a test compound

measuring an increase or decrease in the level of interaction between the polypeptide and cholesterol in response to the test compound where an increase in interaction would indicate that the test compound is an agonist and a decrease in interaction would indicate that the test compound is an antagonist of peptide/cholesterol binding.

27-28. (Canceled)

29.   (Withdrawn) A method for reducing the cholesterol binding ability of peptide which comprise the cholesterol recognition/interaction consensus sequence according to claim 1 comprising

modifying Y from a tyrosine to a serine, or

modifying Q from an arginine to a leucine.

30.   (Withdrawn) A peripheral-type benzodiazepine receptor wherein the cholesterol recognition/interaction function of said receptor is reduced according to the method of claim 29.

31.   (Canceled)

32.   (Withdrawn) The method of claim 38 wherein said administration is by microspheres.

33-38. (Canceled)

39.   (Previously Presented) A peptide having a cholesterol recognition/interaction amino acid consensus sequence, wherein the peptide consists of

$(X)_{0-4}$-Z-$(X)_{0-5}$-Tyr-$(X)_{0-5}$-B-$(X)_{0-5}$ (SEQ ID NO:27)

wherein Z is leucine or valine, B is arginine or lysine and X is any amino acid.